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Central Plateau  
Tri-Party Agreement Milestone Review  
Meeting Minutes  
October 19, 2006

**EDMC**

Approval: Jane A. Hedges (H0-57)  
J. Hedges  
Ecology IAMIT Representative

Date: 12/5/06

Approval: M.S. McCormick (A5-11)  
M.S. McCormick  
DOE IAMIT Representative

Date: 11/9/06

Approval: N. Ceto (B1-46)  
N. Ceto  
EPA IAMIT Representative, Chairperson

Date: 12/6/06

Minutes Prepared by:

Sonya Moore  
S.L. Moore (H8-40)  
Fluor Hanford, Inc.

Date: 12-8-06

Ayres, J.M.	Ecology	H0-57	Lobos, R.	EPA	B1-46
Bartus, D.	EPA	H0-57	Lutz, K.	HQ	A7-75
Bilson, H.E.	FH	H8-20	Mandis, M.L.	Ecology	H0-57
Bond, R.	Ecology	H0-57	Mattlin, E.M.	RL	A5-11
Bohnee, G.	NPT		McCormick, M.S.	RL	A5-11
Boyd, A.	Ecology	B1-46	McKarns, A.C.	RL	A5-15
Brown, MJ	Ecology	H0-57	Miskho, A.G.	FH	H8-40
Cameron, C.E.	EPA	B1-46	Moy, S.K.	RL	A6-38
Ceto, N.	EPA	B1-46	Niles, K.	OOE	
Chalk, S.E.	RL	A7-75	Piippo, R.E.	FH	H8-12
Charboneau, B.L.	RL	A6-33	Post, T.C.	EPA	B1-46
Charboneau, S.L.	RL	A5-11	Price, J.	Ecology	H0-57
Cimon, S.	ODE		Quigley, K.M.	FH	H8-44
Cusack, L.	Ecology	H0-57	Roddy, F.M.	RL	A6-39
Dagan, E.B.	RL	A5-11	Romine, L.D.	RL	A6-33
Einan, D.R.	EPA	B1-46	Russell, R.W.	ORP	H6-60
Faulkner, D.E.	RL	A5-11	Skinnarland, E.R.	Ecology	H0-57
French, M.S.	RL	A6-38	Simmons, F.M.	FH	H8-40
Frey, J.A.	RL	A5-13	Sinton, G.L.	RL	A6-38
Gallagher, R.G.	FH	H5-20	Thompson, K.M.	RL	A6-38
Goswami, D.	Ecology	H0-57	Thompson, S.A.	FH	H8-12
Harris, S.	CTUIR		Tilden, H.T.	PNL	K3-75
Hedges, J.	Ecology	H0-57	Vance, J.G.	FH	H8-12
Henry, D.	OOE		Watson, D.J.	FH	X3-79
Hopkins, A.M.	FH	H8-25	Whalen, C.L.	Ecology	H0-57
Horst, L.	OOE		Williams, J.D.	FH	H8-40
Hyatt, J.E.	FH	H8-40	Wise, B.K.	FH	B3-30
Jackson, D.E.	RL	A4-52	Wolf, A.	CTUIR	
Jim, R.	Yakama		Administrative Record		H6-08

**Central Plateau  
Tri-Party Agreement Milestone Review  
Meeting Minutes  
October 19, 2006**

**M-083-00A, Complete PFP Facility Transition and Selected Disposition Activities.**

Accomplishments

RL is incorporating comments into the Below Grade EE/CA received from FH and will transmit this to the Regulators. RL is looking forward to working with the Regulators on their comments as the EE/CA recommends an interim milestone.

Planned Activities

RL is starting cleanup of the 241-Z D6 cell. It was known the tank leaked so it was taken out of service some time ago.

The positive schedule and cost variances are a result of recovery from FY06 work. The scope and funding are being moved to FY07 work.

Continue cleaning out the glovebox in 234-5Z.

**M-026-01, Submit an Annual Hanford Land Disposal Restrictions Summary Report.**

The Change Request to prepare a summary report for interim years, with a full report every five years, has been discussed with Ecology. The data calls will begin in December. The point in time used for the annual storage volumes is 12/31 of each year.

The monthly PMMs continue to be an effective tool to resolve emerging issues.

**M-091-00, Complete the Acquisition of New Facilities, Modification of Existing Facilities, and Modifications of Planned Facilities.**

Significant Accomplishments

RL has a total of 4491 m<sup>3</sup> of RSW retrieved to date, with 648 m<sup>3</sup> retrieved since the last quarterly report, therefore it is expected that the cumulative milestone amount of 4700 m<sup>3</sup> due 12-30-06 will be met.

RL has submitted Change Request M-91-06-01 to Ecology to formally propose updates to the M-091 series milestones.

M-091-01 – The Change Request identifies a new due date of 2016 to accomplish this activity.

M-091-03 – The schedule to have the PMP updated by December is on target. Ecology noted that if RL does not plan to have a draft until mid-November, that would not give Ecology enough time to review it. They requested RL work with them on any sections they have completed to make sure both parties agree with how it is progressing. Ecology asked that RL lay out what is going to be in the document so they can address any concerns. RL also noted that Ecology would be receiving a letter objecting to the disapproval of the M-91-06-01 change package and requesting initiating the dispute process.

Action: RL will interface with Ecology on the PMP prior to the proposed mid-November draft PMP date.

M-091-12 – All waste needed to meet the 600 m<sup>3</sup> thermal treatment milestone has been sent to the treatment facilities, but there is a lag of 6-9 months to get it treated.

M-091-40 – Some elevated level of volatile organics have been identified through the vent riser sampling in burial ground 218-W-4B. Vapor extraction from the area prior to retrieval is being planned, as was done for Trench 4 in 218-W-4C. This will allow this MLLW stream to be treated at PEcoS and disposed at ERDF

M-091-42 – Although the MLLW is ahead of schedule, the TRUM work is behind and RL will not meet the 12-31-06 milestone of 3000 m<sup>3</sup> of certified waste.

M-091-44 – This milestone is at risk because the capability is not going to be in place in time. RL is proposing increasing the treatment rate from 300 m<sup>3</sup> per year to 600 m<sup>3</sup> to make up for the delay in some treatment capabilities.

**M-092-05, Inclusion of Hanford site Cs/Sr “Treatment and/or Repackaging Parameters” in DOE TWRS Phase II Request for Proposals.**

RL has asked FH to look at the cost and work associated with the various paths for disposal of the capsules, such as through the vitrification process, direct disposal, or retrofit of WESF. DOE estimates that the direct disposal method costs much less than cutting open the capsules. The report should be complete by 3-30-07 and will look at the life cycle cost and risk associated with each path. Not sure if WESF can be retrofitted to meet current standards. The TPA date to get the capsules dispositioned is 2028.

The House and Senate both supported funding for a mixed oxide fuel facility to be built offsite. Construction is due to start in January 2007.

**M-020-00, Permits and Closure Plans.**

RL will be providing Ecology with comments to the 331-C Storage Unit.

### **M-015-00, Complete RI/FS (or RFI/CMS) Process for all Operable Units.**

M-015-46B - Started backfilling but discovered contamination deeper than 15 feet. RL is considering characterizing the trench by installing a borehole. RL will utilize MTCA to determine a path forward by doing some site specific modeling and will also assess the EPA approach.

LW-1 – Based on the new scheduled completion date of March 31, 2007, RL would send the Feasibility Study to EPA and get comments. EPA requested that RL provide them with an informal copy in order for EPA to give some verbal feedback. RL stated that if the information is OUO, they do not want it to be released to the public.

### **M-024-00, Complete Well Installations in Accordance with RCRA/CERCLA Requirements.**

The Regulators stated there would be significant changes in out year planning as there are some wells in 200 UP-1 that need to be moved up. RL plans on initiating a DQO process in mid-November in order to adjust and prioritize those wells. There are several wells currently scheduled to be completed in CY 07 for 200 UP-1 but RL is proposing to move these out to the end of CY 08.

RL stated they had planned on starting on the RI/FS report. EPA was concerned about how RL could start the report without having two years of data to evaluate. RL will review the schedule and critical path.

EPA discussed trading some wells and RL stated that compliance would be considered first, then remediation. RL stated they will be complete the scheduled CY 07 wells in the next 2-3 months and will drill an additional 30 wells.

### **Planned Activities Next Six Months**

RL is concerned about the cost of restarting the cranes in the U Plant Canyon. RL plans on placing equipment under the cover blocks and the cranes are the means for moving the cover blocks. The equipment size reduction/cell space optimization study and canyon reactivation study were provided to the Regulators in August and September 2006, respectively.

RL is pursuing an Agreement in Principal as a path forward for D&D low priority activities. This is considered 'fill in' work for the available resources when they become idle.

RL noted there is a lot of effort to keep the 200-ZP-1 FS on schedule. RL is evaluating regeneration of resin on site as part of the Tc-99 treatability test and noted this has a big impact to the 100 Areas. They are also looking at remediating resin from the 200 Areas. The resin is chromium and some Tc-99. Under NRC regulations, a permit would be

needed to ship the resin to an offsite facility. However, Tc-99 is measured per quantity, and it is unclear how to measure to 10 mcu/quantity of Tc-99.

## **Issues**

RL noted that agreement is needed on key decision parameters to facilitate timely Records of Decision (RODs). EPA does not believe the key decision parameters are the hold up. RL has created a working group to disposition the ROD to River Corridor. RL has identified issues and a path forward but they need to have the Regulators involved. While RL does not want to give up the ability to have one lead Regulator, the clean up strategies for similar sites need to be the same. RL noted there has been discussion about using different clean up strategies for similar sites depending on which lead Regulator is responsible. The key decision parameters need to look at this aspect.

## **M-034-00A, Complete Removal of the K Basins and Their Content.**

### **Significant Accomplishments:**

- The Hose-in-Hose transfer of sludge from K East to K West began on 10-16-06 and is working well.
- Continue work on integrating and accelerating turn over of the K Basins to River Corridor. RL has received a proposal from FH and is expecting to receive one from WCH. The focused activity is on how quickly this can happen.

Revision 0 of the Preliminary Documented Safety Analysis for sludge treatment was given a favorable review from the Seattle office of EPA.

# **PFP Closure Project TPA Milestone M-083**



**October 2006  
Tri-Party Agreement Milestone  
Status Report**

**Ecology Project Manager - R. Bond  
DOE-RL Project Director – S. Charboneau  
FH Project Manager – D. B. Klos  
FH Environmental – A. M. Hopkins**



# M-83 Status for Interim Milestones Through 2006 (as of 6/30/06)

TPA No.	TPA Commitment Date	Milestone Title	Status
M-083-14	9/30/06	COMPLETE 100% OF THE LEGACY PU HOLDUP REMOVAL	<b><i>Complete</i></b>
M-083-40	9/30/06	COMPLETE TRANSITION AND DISMANTLEMENT OF 232-Z BLDG INCINERATOR	<b><i>Complete</i></b>
M-083-22	9/30/08	SUBMIT EE/CA FOR APPROVAL	Ahead of Schedule
M-083-41	9/30/10	COMPLETE TRANSITION AND DISMANTLEMENT OF THE 216-Z-9 CRIB COMPLEX	On Schedule
M-083-32	9/30/11	COMPLETE CLOSURE OF THE PFP 241-Z TSD UNIT	Ahead of Schedule
M-083-42	9/30/11	COMPLETE TRANSITION AND DISMANTLEMENT OF THE 241-Z WASTE TREATMENT FACILITY	Ahead of Schedule

# Accomplishments

- Completed 232-Z demolition to Slab-on-grade
- Completed shipment of VIPAC fuel pins
- Completed 241-Z Cell D4 RCRA/CERCLA end points
- Completed 241-Z Cell D7 RCRA closure activities
- Completed demolition of 241-ZG
- Completed disposition of solution containers from the PFP Complex
- Completed 234-5Z Roof Repair
- Completed clean-out of 19 hoods/gloveboxes in FY06 (for a total of 63) to LLW criteria
- Completed disposition of miscellaneous nuclear materials
- Submitted the Below Grade EE/CA to RL



## **Planned Activities**

- **Return 87 Sodium Bonded Fuel Pins to FFTF**
- **Complete 241-Z Cell D7 CERCLA End Points**
- **Start cleanup of the 241-Z D6 cell**
- **Complete Professional Engineer and Operator certification on 241-Z RCRA Closure**
- **Continue equipment cleanout of gloveboxes**

# Schedule / Cost Performance

## Fiscal Year to Date Status

RL-0011 - Nuclear Material Stabilization & Disposal (PFP)	Fiscal Year to Date				
	BCWS	BCWP	ACWP	SV\$	CV\$
	135,000.5	144,154.4	139,748.6	9,153.9	4,405.8



## **Schedule / Cost Performance**

### **Fiscal Year to Date Status (Continued)**

#### **FYTD Schedule Variance: \$9.2M:**

- Recovery of prior year activities for material access area (MAA) elimination, 232-Z demolition and facility lay-up, and deletion of FY05 PRF and 234-5Z scope

#### **FYTD Cost Variance: \$4.4M:**

- Yearend variance results from efficiencies in Min Safe activities, facility lay-up, ISSF design, Transition Program and disposition of solid waste

# **Issues**

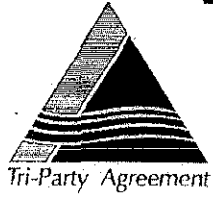
**Regulatory Issues:**

**None**

**Non-Regulatory Issues:**

**None**





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**Land Disposal Restrictions Report  
(Tri-Party Agreement Milestone M-26-01)  
October 19, 2006**

**Actions Planned for Next Six Months**

- Continue the monthly PMMs
- Complete new TPA change request
- Begin preparation of the CY2006 LDR Summary Report in December 2006



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## **Land Disposal Restrictions Report (Tri-Party Agreement Milestone M-26-01) October 19, 2006**

- Monthly PMMs continue to be an effective tool for dialogue and as a venue to resolve emerging issues
  - One action remains open from the March 14, 2002, Settlement Agreement (Consolidation of Requirements Document)
  - Emerging issues or concerns are addressed during the PMMs as “Hot Topics”
    - The new TPA change request for submitting LDR reports



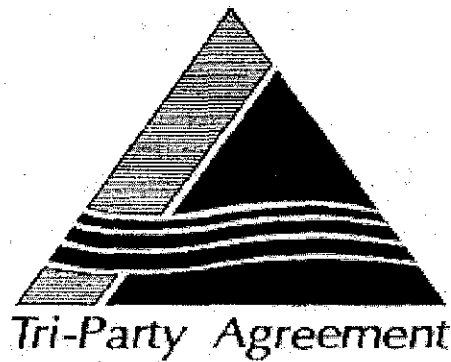
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## **Land Disposal Restrictions Report (Tri-Party Agreement Milestone M-26-01) October 19, 2006**

- Tri-Party Agreement milestone M-26-01 requires annual submittal of the Hanford Site Land Disposal Restrictions (LDR) Report
- TPA change request M-26-05-01 approved January 4, 2006 established a summary report for CY2005 as a pilot activity and identified the content of the summary report
- Ecology approved the CY 2005 LDR Summary Report August 11, 2006 and requested development of new TPA change request.
- The new TPA change request will modify M-26-01 to include additional annual submittals of the summary report. The full LDR report will be submitted every five years.

**Land Disposal Restrictions Report  
(Tri-Party Agreement Milestone M-26-01)  
Quarterly Presentation  
October 19, 2006**



**Greg Sinton, RL Project Lead  
Woody Russell, ORP Project Lead**

**Deborah Singleton, Ecology Lead**



# Tri-Party Agreement M-91 Milestone Series Quarterly Presentation

Greg Sinton  
U.S. Department of Energy,  
Richland Operations Office

October 19, 2006

## Tri-Party Agreement M-91 Milestone Series Quarterly Presentation

### Significant Accomplishments of Last Three Months:

- Treated 227 m<sup>3</sup> of M-91-42 MLLW (July-Sept), bringing the total to 5024 m<sup>3</sup> as of 9/30/06 meeting the 4890 m<sup>3</sup> 12/31/06 milestone 4 months early.
- Retrieved 648 m<sup>3</sup> of RSW since the last quarterly report (7/11/06 – 10/16/06), bringing the total to 4491 m<sup>3</sup>.
- Completed M-91-05-T01 a year early by submitting the M-91 FDC/ES 9/29/06.
- Certified 292 cubic meters of M-91-42 TRU/M (7/10/06 – 10/13/06) bringing the total volume certified since 12/31/02 to 2221 cubic meters.

# Tri-Party Agreement M-91 Milestone Series

## Quarterly Presentation

### Significant Accomplishments of Last Three Months:

- Submitted change notice M-91-06-01 9/29/06 to formally propose updates to the milestones.
- Finalized and approved fourth and final retrieval SAP.
- Completed M-91-45 RH and Large container annual report 9/29/06
- Completed removing waste from 218-W-4C Trench 4

M-91 Status Summary 10/19/06

Milestone	Due Date(s)	Status Summary	Comments
<b>General Comments</b>			In this table "On-Schedule" means it is anticipated the milestone will be met.
<b>M-91-00:</b> Major Milestone for acquisition of needed facilities/capabilities for mixed and suspect mixed MLLW, and TRUM and suspect TRUM.	TBD	On Schedule	
<b>M-91-01:</b> Facility/Capability Interim Milestone (RH and/or large container TRUM)	6/30/12	At Risk (Proposed a revision to this schedule in M-91 change package M-91-06-01 submitted 9/29/06)	Engineering Study and Functional Design Criteria were delivered to EPA and Ecology 9/29/06 (06-AMCP-0311). Briefed Ecology and EPA on the FDC/ES submittal on October 11, 2006.
<b>M-91-03:</b> Submit TRUM/MLLW PMP	12/31/03, 12/28/06 3/31/09, 3/31/13	On Schedule	M-91-03 PMP approved by Ecology on May 12, 2004. Coordination of PMP "workgroup" and draft PMP review discussed in October 11 meeting. Currently planning to have draft of PMP to share with Ecology for initial feedback in early to mid November.
<b>M-91-05-T01:</b> Complete RH and or large TRUM retrieval/processing Engineering Study/FDC	12/31/07	Complete	Submitted FDC/ES 9/29/06 (06-AMCP-03111). This met the Target date a year early.
<b>M-91-12:</b> CH-MLLW Thermal Treatment (600 m <sup>3</sup> cumulative)	11/16/07	On Schedule	As of October 4, 532 cubic meters of thermal treatment waste had been treated. The last shipment needed to have shipped enough thermal treatment waste to meet the milestone (when treated) was shipped to PEcoS 9/20/06.



<b>M-91-12A:</b> CH-MLLW Thermal Treatment (240 m <sup>3</sup> )	9/30/05	COMPLETE Met 8-16-05	Completion letter (05-AMCP-0420) sent to Ecology 9/27/05
<b>M-91-15:</b> RH MLLW and/or Large Size MLLW Treatment	6/30/08	At Risk (proposed a revision to the current scope based on M-91 facility design analysis)	<p>“COMPLETE ACQUISITION OF FACILITIES AND/OR CAPABILITIES AND INITIATE TREATMENT OF RH-MLLW AND CH MLLW IN BOXES AND LARGE CONTAINERS”</p> <ul style="list-style-type: none"> <li>• Engineering study/FDC to be submitted 9/29/06.</li> <li>• Submitted a change package September 29, 2006 proposing revision of this milestone based on initial M-91 facility planning to move the MLLW RH and some MLLW large size capability to the M-91 facility completion date.</li> </ul>
<b>M-91-40:</b> Retrieval and designation of CH-RSW (regardless of size)	4700 m <sup>3</sup> cumulative by 12/31/06 and annual retrieval volumes through 2010. Complete retrieval in T-4 by 12/31/06. Plus various other requirements	On Schedule Met 2700 level in July 05	<ul style="list-style-type: none"> <li>• Planning to start retrieval in W-4B this Fall while continuing with concurrent 4C retrieval. Plan to use the 4C staging area for both 4C and 4B waste.</li> <li>• The April-June quarterly SAP report was sent to Ecology July 21. The July-Sept quarterly report should be to Ecology in late November.</li> <li>• All four SAPs have been approved</li> <li>• 4B vent riser sampling occurred in late August. Based on vapor concentrations identified by identified the project is currently evaluating doing vapor extraction in the elevated concentrations area (portion of T7 in 4B) prior to retrieval as was done in 4C trench 4.</li> <li>• 4491 m<sup>3</sup> of RSW retrieved as of 10/16/06.</li> <li>• The Non-TRU fraction of PFP debris from retrieval is being sent to PEcoS for treatment prior to disposal at ERDF. Treatment has been proceeding well. 903 m<sup>3</sup> had been sent to PEcoS for treatment and 816 m<sup>3</sup> of that had subsequently been disposed of in ERDF through 10/4/06.</li> <li>• On target to complete retrieval in T-4 by 12/31/06. All the</li> </ul>

			waste has been removed from the trench, but not all is to a TSD "retrieved" yet.
<b>M-91-41:</b> Retrieval and Designation of RH RSW (regardless of size)	See comment column	On Schedule (Planning)	<ul style="list-style-type: none"> <li>• 1/1/11: Initiate retrieval of RH RSW</li> <li>• 12/31/14: Complete non-caisson RH RSW retrieval</li> <li>• 12/31/18: Complete 4B RH RSW retrieval</li> </ul>
<b>M-91-42:</b> Treatment of non-large size CH-MLLW and certification of non-large size CH TRUM	Annual treatment requirements through 12/31/09 (MLLW), 12/31/11 (TRUM)	On schedule For MLLW treatment, behind schedule for CH TRUM certification	<ul style="list-style-type: none"> <li>• Met the MLLW 12/31/06 milestone 4 months early (4890 cubic meters). Completion letter to Ecology is in preparation.</li> <li>• 5023 m<sup>3</sup> of the MLLW subject to this milestone (MLLW-2 and MLLW-04 through MLLW-10 excluding MLLW-7) has been dispositioned as of 10/4/06. (6520 m<sup>3</sup> required by 12/31/07)</li> <li>• Shipped 1756 cubic meters of M-91-42 TRU/M and had accumulated a backlog of 465 cubic meters of certified but not shipped TRU/M bringing the total certified TRU/M counting toward M-91-42 to 2221 as of 10/13/06.</li> <li>• Providing monthly briefing at the IAMIT on TRUM certification status.</li> </ul>
<b>M-91-43:</b> Designation and treatment of RH and or Large Size MLLW	See Comment Column	At Risk (Change package M-91-06-01 proposed a revision to current schedule)	<ul style="list-style-type: none"> <li>• Existing requirements include: a) 12/31/08: Complete designation of RH MLLW and or Large Size MLLW in storage. b) 6/30/08: Begin RH and or large size MLLW treatment at rate of 300 cubic meters per year</li> <li>• Treated 193 m<sup>3</sup> of MLLW-07 since 12/31/02.</li> <li>• Modifications and clarifications to M-91-43 being proposed in M-91 change package.</li> <li>• Investigating PEcoS capability to process containers larger than 10 cubic meters (up to as high as 35 cubic meters)</li> </ul>
<b>M-91-44:</b> Designation of Newly Generated and Stored RH	See Comment Column	At Risk (Planning) Changes	<ul style="list-style-type: none"> <li>• Existing requirements include: a) Designate all RH and large size Transuranic waste in storage by 12/31/12.</li> </ul>

and or Large Size Transuranic Waste and Large/RH TRUM certification		proposed in change M-91-06-01 submitted 9/29/06	b)Begin treating RH and/or large container TRUM at a minimum rate of 300 cubic meters per year by 6/30/2012
<b>M-91-45:</b> RH and or Large Size Waste Annual Report	9/30/04 and annually thereafter	On Schedule	<ul style="list-style-type: none"> <li>2006 report was delivered to Ecology 9/29/06 (06-AMCP-0314).</li> </ul>
<b>M-16-93:</b> Submit implementation workplan for acquisition of capabilities necessary to prepare TRU/M waste generated by CERCLA clean-up actions at Hanford for disposal at WIPP	9/30/2006	Complete	<ul style="list-style-type: none"> <li>Report delivered to EPA and Ecology 9/29/06 (06-AMCP—312)</li> </ul>

Fn: M-91 PMM Status table 10-18-06

## Tri-Party Agreement M-91 Milestone Series Quarterly Presentation

### Actions Planned for Next Six Months

- Meet RSW retrieval 12/31/06 milestones
- Continue certification and shipment of transuranic waste to WIPP (two shipments per week) and treatment of MLLW.
- Work on M-91 clarifications and changes provided in change package M-91-06-01 through the TPA dispute process.
- Continue thermal treatment at PEcoS and Permafix making progress towards meeting M-91-12 early.
- Submit SAP quarterly reports
- Complete M-91-03 PMP revision (12/28/06)
- Start retrieval in 218-W-4B

# Tri-Party Agreement Milestone M-92-05

## Quarterly Status

S.K. Moy  
U.S. Department of Energy  
Richland Operations Office

October 19, 2006

## Tri-Party Agreement Milestone M-92-05 Quarterly Status

TPA Milestone M-92-05, due 6/30/07: “DOE will assess the viability of directly disposing of Hanford Cs/Sr capsules at the National High-Level Waste Repository. Based on this assessment if DOE concludes that direct disposal is a viable and preferred alternative to vitrification, DOE will submit to Ecology, specific documentation justifying its conclusion, with a proposed milestone change request establishing enforceable agreement milestones for disposition Hanford Cs/Sr capsules by 2028.”



## Tri-Party Agreement Milestone M-92-05

### Quarterly Status

- Performance assessment modeling initiated in January 2006 to support the direct disposal assessment
- Performance assessment continues to be on schedule for preliminary results in December 2006

## Alternative Analyses Study

- RL initiated alternative analyses study for cost estimates on the disposal paths per OIG audit recommendation to be completed by 3/30/07.
- Study to identify the technical logic and estimated costs for the disposal of the capsules through the vitrification process, direct disposal, and retrofit WESF to dissolve the salts and transfer to double-shell tanks followed by vitrification.
- RL will evaluate study for technical viability and associated life-cycle costs plus risk mitigation strategy

# CENTRAL PLATEAU MILESTONE REVIEW

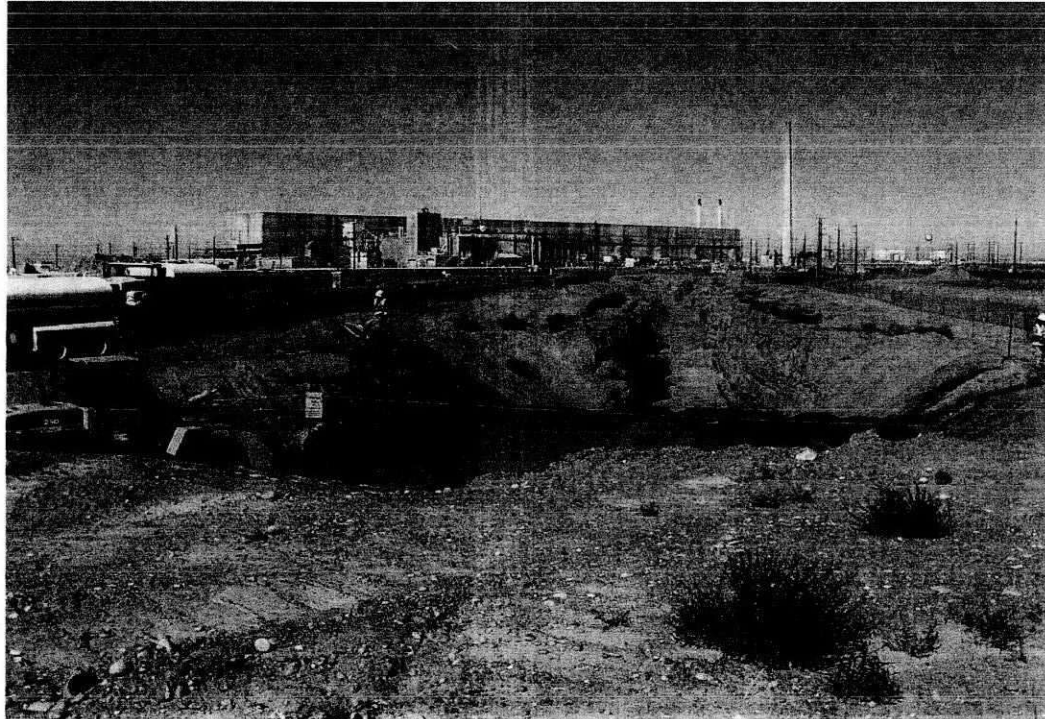
M-015-00, M-016-00, M-020-00, M-024-00



*Tri-Party Agreement*

**U.S. Department of Energy  
U.S. Environmental Protection Agency  
State of Washington, Department of Ecology  
4th Quarter FY06  
October 19, 2006**

# Facilities D&D and Waste Sites Remediation



Backfilling 200-W-42 / UPR-200-W-163 Excavation  
Trench

# Milestone Status

TPA Number	Commitment Date	Milestone Title	Status
<b>M-015-00</b>	<b>Complete RI/FS (or RFI/CMS) Process for all Operable Units</b>		
M-015-46A	2/28/06	Submit 200 Area Chemical Laboratory Waste OUs RI Report	COMPLETE
M-015-39C	3/31/06	Submit Draft A 200-CS-1 Chemical Sewer Group FS and PP	COMPLETE
M-015-43C	5/31/06	Submit 200-PW-2 OU FS, PP & Permit Mod	COMPLETE
M-15-44A	4/30/06	Submit 200-MW-1 OU Remedial Investigation Report	COMPLETE
M-015-45A	10/31/06	Submit Plutonium/Organic-Rich OU Remedial Investigation Report	COMPLETE
M-015-46B	11/30/06	Submit 200 Area Chemical Laboratory Waste OUs FS	On Schedule (Schedule to be changed to 3/31/07 in M-15-06-05)
M-015-44B	04/30/07	Submit 200-MW-1 OU FS and PP	At risk (Schedule to be changed to 12/31/08 in M-15-06-02)
M-015-45B	09/30/07	Submit Plutonium/Organic-Rich OU FS and PP	Very aggressive schedule to meet TPA milestone
M-015-48A	05/31/06	Submit Draft A 200-ZP-1 OU RI Report	COMPLETE
M-015-48B	05/31/07	Submit Draft A 200-ZP-1 OU FS and PP	On Schedule
<b>M-016-00</b>	<b>Remedial Design / Remedial Action</b>		
M-016-00	09/30/24	Complete Remedial Actions for all Non-Tank Farm Operable Units	-----
<b>M-020-00</b>	<b>Submit Closure Plans for all RCRA TSD Units</b>		
M-020-39	3/31/06	Submit 216-S-10 Pond and Ditch Closure Plan to Ecology	COMPLETE
M-020-33	4/30/06	Submit 216-A-10/216-A-36B/216-A-37-1 Crib Closure/Post Closure Plans	COMPLETE

# Milestone Status

TPA Number	Commitment Date	Milestone Title	Status
M-024-57G	12/31/05	DOE Shall Install a Cumulative of 45 Wells by 12/31/05	COMPLETE
M-024-57H	06/30/06	DOE Initiates Discussions Annually to Reaffirm Selected Wells	COMPLETE
M-024-57I	08/01/06	Conclude Negotiations and Revise M-024-57 by 08/01/06	COMPLETE
M-024-57J	12/31/06	DOE Shall Install a Cumulative of 60 Wells by 12/31/06	On Schedule
M-024-00	TBD	Complete Well Installations in Accordance with RCRA/CERCLA Requirements	-----

# Significant Accomplishments

## M-015-00 & M-015-00C

- **The Parties signed the Tentative Agreement for the M-015 Change Request Package.**

### Waste Sites Remediation

- Received Ecology comments on 200-CS-1 Feasibility Study, July 3, 2006.
- Submitted a plan to Ecology to produce 200-CS-1 Draft B Feasibility Study and Proposed Plan.
- Issued Draft A 200-MW-1 Operable Unit Remedial Investigation Report.
- Issued Draft A 200-PW-1/3/6 Operable Unit Remedial Investigation Report.
- Completed additional geophysical surveys in 200-SW-2 burial grounds.
- SW-1/2 mini DQO completed for non-intrusive characterization.

### Groundwater Remediation

- Received concurrence from EPA that changes made to the 200-ZP-1 RI Report have fully addressed EPA's requirements.
- The Draft A treatability test plan for testing a Purolite resin for removing Tc-99 contamination from ZP-1 water is in editing and will be released shortly for RL and EPA review.
- Held a workshop September 25 and 26 to receive Stakeholder input to the ZP-1 feasibility study process.
- Completed 200-BP-5 Drilling SAP supporting the far field investigation of the Uranium and Tc-99 plumes and investigation of the confined aquifer near 299-E33-12.



# Significant Accomplishments

**M-016-00**

## **Waste Sites Remediation**

- Backfilled 200-W-42 piping excavation just north of U-8 Crib.
- CERCLA Removal Action supporting proposed barriers at U Plant cribs:
  - Sampled 200-W-42 Phase I Excavation for Backfill Concurrence.
  - Backfilled Phase I, Part I and Received Authorization to Backfill Part II on 9/28/06.
- CERCLA Removal Action for Remaining 200-W-42 Vitreous Clay Piping (VCP)/UPR-200-W-163 (Phase II):
  - Excavated and Removed all 200-W-42 Piping and UPR-200-W-163 down to 15'.
  - Sampled Phase II Excavation for Backfill Concurrence. Sample Results Exceeded Limits. Developed Path Forward for Deeper Contamination Investigation.

# Significant Accomplishments

## M-024-00

### Groundwater Remediation

- 15 of the 15 proposed CY06 wells and 10 CY07 wells completed.
- 11 remedial investigation wells in progress. (200-ZP-1 [3], <sup>99</sup>Tc wells T-4 and T-5 near T-Tank Farm [2], 100-KR-4 [3] and 200-BP-5 [3]).

# Facilities and Surveillance

## Schedule/Cost Performance FYTD Status (\$000s)

Work Scope	BCWS	BCWP	ACWP	SV	CV	BAC
4.1.2.8.3 - 200-UW-1 U Plant Zone Waste Site Remediation	8,551.1	8,171.9	9,785.0	(379.2)	(1,613.1)	8,551.1
4.1.2.8.18 - Haul Road	749.1	1,067.5	416.4	318.4	651.1	749.1
4.1.2.8.19 - Regulatory Support	0.0	0.0	5.0	0.0	(5.0)	0.0
<b>CP-1 Remediation Total</b>	<b>9,300.1</b>	<b>9,239.4</b>	<b>10,206.4</b>	<b>(60.8)</b>	<b>(967.0)</b>	<b>9,300.1</b>
4.1.2.1.3 - Balance of Canyon and Other Facilities	2,032.3	1,782.4	1,911.8	(249.8)	(129.4)	2,032.3
4.1.2.8.1 - Central Plateau Integration and Planning	1,530.2	1,530.2	1,528.1	(0.0)	2.1	1,530.2
4.1.2.8.2 - Ecological Risk Assessment	650.5	892.5	1,002.3	241.9	(109.8)	650.5
4.1.2.8.4 - B/C Cribs, Trenches & Cntl Area Remediation	(73.7)	109.7	206.0	183.4	(96.3)	(73.7)
4.1.2.8.5 - 200-CW-1 Gable Mtn/B Pond CWG	127.7	96.8	20.9	(30.8)	75.9	127.7
4.1.2.8.6 - 200-CS-1 Chemical Sewer Group	310.1	230.9	185.9	(79.2)	45.0	310.1
4.1.2.8.7 - 200-CW-5 U Pond/Z-Ditches CWG	41.5	1,287.5	11.8	1,246.1	1,275.8	41.5
4.1.2.8.9 - 200-PW-2/4 Uranium-Rich Process	191.3	195.8	251.6	4.5	(55.7)	191.3
4.1.2.8.10 - 200-PW-1/3/6 Pu-Rich Waste Group	3,416.5	3,558.8	3,633.4	142.2	(74.6)	3,416.5
4.1.2.8.11 - 200-LW-1 200A Chem Lab Waste Group	440.7	437.8	389.9	(2.9)	47.9	440.7
4.1.2.8.12 - 200-MW-1 Misc. Waste Group	1,027.9	1,170.5	534.8	142.6	635.7	1,027.9
4.1.2.8.13 - 200-UR-1 Unplanned Releases Waste Group	560.5	1,567.2	589.3	1,006.7	977.9	560.5
4.1.2.8.14 - 200-SW-2 Rad & 200 SW-1 Non Rad Landfills	1,408.8	1,423.1	858.8	14.3	564.3	1,408.8
4.1.2.8.15 - 200-IS-1 Tanks/Boxs/Pits/Lines Group	447.1	463.9	383.2	16.8	80.7	447.1
4.1.2.8.16 - 200-BP-1 Hanford Prototype Barrier	1.6	1.4	0.0	(0.3)	1.4	1.6
4.1.2.8.17 - Burial Ground Sampling & Analysis	215.4	122.4	52.3	(93.0)	70.1	215.4
<b>CP-2 Closure Projects</b>	<b>12,328.5</b>	<b>14,870.9</b>	<b>11,560.1</b>	<b>2,542.4</b>	<b>3,310.9</b>	<b>12,328.5</b>
4.1.2.1.1 - U Plant	552.9	573.9	726.8	21.0	(152.9)	552.9
4.1.2.1.2 - Plutonium Concentration Facilities	0.0	8.2	0.6	8.2	7.6	0.0
4.1.2.1.3 - Balance of Canyon and Other Facilities	0.0	801.1	542.1	801.1	259.0	0.0
4.1.2.4.2 - 200A GPF - Deactivation & Disposition	26.6	(2.6)	0.1	(29.1)	(2.7)	26.6
4.1.2.4.3 - B Laydown Yard D&D	0.0	0.0	0.6	0.0	(0.6)	0.0
4.1.2.4.4 - FY06 Utility Isolation 6 Mobile Facilities	0.0	0.0	0.3	0.0	(0.3)	0.0

Updated through September 2006

# Facilities and Surveillance

## Schedule/Cost Performance FYTD Status (\$000s)

<b>Work Scope</b>	<b>BCWS</b>	<b>BCWP</b>	<b>ACWP</b>	<b>SV</b>	<b>CV</b>	<b>BAC</b>
<b>CP-3 Deactivation &amp; Decommissioning</b>	<b>579.5</b>	<b>1,380.6</b>	<b>1,270.5</b>	<b>801.1</b>	<b>110.1</b>	<b>579.5</b>
4.1.2.6.1 - CP Min Safe Oversight & Services	3,278.9	3,278.9	2,861.5	(0.0)	417.4	3,278.9
4.1.2.6.2 - Nuclear Facility Support	313.9	313.9	505.3	(0.0)	(191.4)	313.9
4.1.2.6.4 - CP Inactive Waste Sites Min Safe	662.5	661.2	674.5	(1.2)	(13.2)	662.5
4.1.2.6.5 - Misc Facilities Min Safe	728.3	743.9	676.4	15.7	67.5	728.3
4.1.2.6.6 - 209-E Min Safe	339.8	339.8	117.1	0.0	222.7	339.8
4.1.2.6.7 - U Plant Min Safe	494.1	494.0	653.0	(0.0)	(159.0)	494.1
4.1.2.6.8 - B Plant Min Safe	350.7	515.7	389.6	164.9	126.0	350.7
4.1.2.6.9 - PUREX Min Safe	887.4	1,182.6	1,147.7	295.2	34.9	887.4
4.1.2.6.10 - REDOX Min Safe	379.6	375.8	489.5	(3.7)	(113.6)	379.6
4.1.2.6.12 - CP General Purpose Facilities (GPF) Min Safe	136.8	136.8	58.5	(0.0)	78.3	136.8
4.1.2.6.13 - CP Active Waste Sites Min Safe	53.1	53.1	29.1	0.0	24.0	53.1
4.1.2.6.14 - Spider Lift - NESHAPs	0.0	0.0	187.7	0.0	(187.7)	0.0
4.1.2.6.15 - Facility Hazard Reductions	206.0	72.6	34.6	(133.4)	38.0	206.0
<b>CP-4 Surveillance &amp; Maintenance</b>	<b>7,831.1</b>	<b>8,168.4</b>	<b>7,824.5</b>	<b>337.3</b>	<b>343.9</b>	<b>7,831.1</b>
4.1.2.7.1 - CP Project Management and Support	2,303.1	2,303.1	2,012.8	(0.0)	290.3	2,303.1
4.1.2.7.2 - Business Management & Integration	923.3	923.3	848.3	(0.0)	75.0	923.3
4.1.2.7.3 - Chief Engineer	0.0	0.0	46.6	0.0	(46.6)	0.0
4.1.2.7.4 - Technical Support	1,146.1	1,146.1	1,097.7	0.0	48.5	1,146.1
4.1.2.7.5 - ESH&Q	1,324.2	1,324.2	1,466.9	(0.0)	(142.7)	1,324.2
4.1.2.7.6 - CP Training	0.0	0.0	1.8	0.0	(1.8)	0.0
4.1.2.7.8 - Procure Decon Trailer	113.4	0.0	0.0	(113.4)	0.0	113.4
4.1.2.7.9 - Procure Shower Trailer	187.3	0.0	0.0	(187.3)	0.0	187.3
4.1.2.8.1 - Central Plateau Integration and Planning	0.0	0.0	(3,942.5)	0.0	3,942.5	0.0
<b>CP-5 Project Mgmt &amp; Support</b>	<b>5,997.4</b>	<b>5,696.8</b>	<b>1,531.6</b>	<b>(300.7)</b>	<b>4,165.1</b>	<b>5,997.4</b>
4.1.2.8.1 - Central Plateau Integration and Planning	0.0	0.0	(3,942.5)	0.0	3,942.5	0.0
<b>CP-6 RL-40 Miscellaneous Account Total</b>	<b>0.0</b>	<b>0.0</b>	<b>(3,942.5)</b>	<b>0.0</b>	<b>3,942.5</b>	<b>0.0</b>
<b>Grand Total</b>	<b>36,036.7</b>	<b>39,356.0</b>	<b>28,450.6</b>	<b>3,319.4</b>	<b>10,905.4</b>	<b>36,036.7</b>

Updated through September 2006

# Facilities and Surveillance Schedule Performance

Variance Explanations  
(\$ in Millions)

Schedule Variance	FYTD Variance	Causal Factors/Corrective Actions
CP-1 Remediation Projects	(0.1)	Due to completion of FY 2005 carryover work scope offset by delays in 200-UW-1 U Plant Zone Waste Site due to delays in ROD approval.
CP-2 Closure Projects	2.5	Favorable progress due to close out of post contract period no action waste sites (+\$3M) and completion of FY 2005 carryover work scope (+\$.4M). Offset by delays in Model Group DQO's (-\$.3M) due to not receiving the tentative agreement on M-15; delays in field work for the Ecological Risk Assessment (-\$.1M) due to not receiving the approval of the SAP as planned; delays in the 200-CS-1 FS/PP Draft B (-\$.1M) due to resolution of comments; due to completion of Burial Grounds (-\$.1M) FY 2006 work during FY 2005; and due to delays in completing the 200-PW-1 Z-9 Slant Borehole Waste Management and FS (-\$.2M). Note: EPA believes that the Model Group DQOs could have been continued and need to be performed regardless of when the Tentative Agreement is signed and therefore shouldn't be counted as a legitimate reason for a delay.
CP-3 Deactivation & Decommissioning	0.8	Due to progress on post contract period industrial facility demolition.
CP-4 Surveillance & Maintenance	0.3	Due to completion of FY 2005 carryover work scope.
CP-5 Project Mgmt & Support	(0.3)	Due to delays in procurement of protable decontamination and show facilities; no vendors have shown interest in bidding date.
<b>D&amp;D Totals</b>	<b>3.3</b>	

Updated September 2006

## Facilities and Surveillance Cost Performance

Cost Variance	FYTD Variance	Causal Factors/Corrective Actions
CP-1 Remediation Projects	(1.0)	Efficiencies in the haul road construction (+\$.6M); offset by increased ERDF and labor cost for W-42 pipeline removal due to contamination spread (-\$1.6M).
CP-2 Closure Projects	3.3	Primarily due to close out of post contract period no action waste sites at no cost (+\$3M) and efficiencies in SW-2 field work (+\$.5M) and other waste site areas (+\$.5M).
CP-3 Deactivation & Decommissioning	0.1	
CP-4 Surveillance & Maintenance	0.3	Due to staffing efficiencies and loaned labor to higher priority projects.
CP-5 Project Mgmt & Support	0.2	Due to staffing efficiencies and resources supporting non D&D work scope.
CP-6 RL-40 Misc Adjustment	3.4	Variance distribution for PBS RL-40 was credited to this subproject.
<b>D&amp;D Totals</b>	<b>3.0</b>	

Updated September 2006

# GRP Schedule/Cost Performance

## Fiscal Year to Date Status (\$M)

### 4<sup>th</sup> Quarter FY-06

Updated through September 30, 2006

GRP Workscope by WBS CCL	BCWS	BCWP	ACWP	SV	CV	SV - %	CV - %	BAC
4.1.6.1 - Hanford Site Integration and Assessments	\$4,588.6	\$4,665.0	\$4,561.1	\$76.4	\$103.9	1.7%	2.2%	\$4,588.6
4.1.6.2 - Prevent Further Degradation	\$2,134.2	\$2,133.1	\$2,161.4	(\$1.1)	(\$28.3)	0.0%	-1.3%	\$2,134.2
4.1.6.3 - Monitor Groundwater	\$1,019.3	\$1,019.3	\$1,266.0	\$0.0	(\$246.7)	0.0%	-24.2%	\$1,019.3
4.1.6.4 - 100 Area Groundwater Remediation	\$7,891.9	\$6,960.2	\$8,331.5	(\$931.7)	(\$1,371.3)	-11.8%	-19.7%	\$7,891.9
4.1.6.5 - Groundwater Remediation Technologies	\$2,357.5	\$2,284.0	\$3,074.7	(\$73.5)	(\$790.7)	-3.1%	-34.6%	\$2,357.5
4.1.6.6 - Monitor Groundwater Interim Actions	\$721.0	\$705.5	\$716.2	(\$15.5)	(\$10.7)	-2.1%	-1.5%	\$721.0
4.1.6.7 - Drill Groundwater RCRA/CERCLA/AEA Wells	\$6,177.2	\$4,846.1	\$4,568.8	(\$1,331.1)	\$277.3	-21.5%	5.7%	\$6,177.2
4.1.6.8 - Groundwater Protection Project Management	\$5,341.0	\$5,341.0	\$5,168.1	\$0.0	\$172.9	0.0%	3.2%	\$5,341.0
4.1.6.9 - Groundwater Integrated Field Work	\$4,930.4	\$4,930.4	\$4,989.7	\$0.0	(\$59.3)	0.0%	-1.2%	\$4,930.4
4.1.6.10 - 200 Area Groundwater Remediation	\$4,901.2	\$3,853.0	\$4,590.1	(\$1,048.2)	(\$737.1)	-21.4%	-19.1%	\$4,901.2
<b>Grand Total</b>	<b>\$40,062.3</b>	<b>\$36,737.6</b>	<b>\$39,427.6</b>	<b>(\$3,324.7)</b>	<b>(\$2,690.0)</b>	<b>-8.3%</b>	<b>-7.3%</b>	<b>\$40,062.3</b>



**GRP Schedule Variance Explanations - Quarter FY-06**  
**(\$ in Millions)**

Updated through September 30, 2006

<b>Schedule Variance</b>	<b>FYTD Variance</b>	<b>Causal Factors/Corrective Actions</b>
4.1.6.1 – Hanford Site Integration and Assessments	0.1	Insignificant.
4.1.6.2 – Prevent Further Degradation	0.0	Insignificant.
4.1.6.3 – Monitor Groundwater	0.0	Insignificant.
4.1.6.4 – 100 Area Groundwater Remediation	(0.9)	Delays in material procurements for pump and treat expansions. Carryover to FY-07.
4.1.6.5 – Groundwater Remediation Technologies	(0.1)	Apatite chemical injections were planned to start in March; unanticipated results with respect to Sr-90 concentrations and remediation following the June injections. Carryover to FY-07.
4.1.6.6 – Monitor Groundwater Interim Actions	(0.0)	Insignificant.
4.1.6.7 – Drill Groundwater RCRA/CERCLA/AEA Wells	(1.3)	Continued delays in getting into the field for BP-5, ZP-1 R/FS and ZP-1 Tc-99 well drilling due to late approvals of DQO and SAP documents. Carryover to FY-07.
4.1.6.8 – Groundwater Protection Project Management	0.0	Insignificant.
4.1.6.9 – Groundwater Integrated Field Work	0.0	Insignificant.
4.1.6.10 – 200 Area Groundwater Remediation	(1.0)	Continued delays in progress tied to RI/FS scope for Operable Units BP-5, PO-1, and UP-1. Carryover to FY-07.

## GRP Cost Variance Explanations - Quarter FY-06

(\$ in Millions)

Updated through September 30, 2006

Cost Variance	FYTD Variance	Causal Factors/Corrective Actions
4.1.6.1 – Hanford Site Integration and Assessments	0.1	Insignificant.
4.1.6.2 – Prevent Further Degradation	(0.0)	Insignificant.
4.1.6.3 – Monitor Groundwater	(0.2)	Continued sampling and inspection costs on modutanks; well maintenance and sampling waste management activities not budgeted (startup and operation of 90 day waste pad).
4.1.6.4 – 100 Area Groundwater Remediation	(1.4)	Additional labor costs due to system upgrades and additional con-ops compliance requirements necessary to operate the 100 Area P&Ts. Sampling costs in support of disruptions in the resin regeneration process & the DR-5 system being placed under an RWP.
4.1.6.5 – Groundwater Remediation Technologies	(0.8)	Subcontract support for field implementation of the NR-2 barrier is greater than planned. Test injections for NR-2 took longer than planned due to a tighter vadose formation than expected. NR-2 chemical costs are increasing.
4.1.6.6 – Monitor Groundwater Interim Actions	(0.0)	Insignificant.
4.1.6.7 – Drill Groundwater RCRA/CERCLA/AEA Wells	0.3	The number of wells to be drilled for TPA milestone M-24 for CY-06 was decreased due to wells drilled under work for others being applied to the M-24 count.
4.1.6.8 – Groundwater Protection Project Management	0.2	Labor and occupancy underruns.
4.1.6.9 – Groundwater Integrated Field Work	(0.1)	Insignificant.
4.1.6.10 – 200 Area Groundwater Remediation	(0.7)	Labor overrunning in ZP-1 operations and maintenance; PO-1 SAP; added costs for ZP-1 RI/FS technical support; increased engineering for UP-1, ZP-1, and ZP-2; sampling costs, long term monitoring, PM activities, engineering, waste handling.

# Planned Activities

## Next 6 Months

### Facilities D&D

- U Plant Canyon Disposition Initiative (CDI) post-ROD work on RDR/RAWP due to regulatory agencies by end of CY06.
  - Canyon reactivation study (issued September 2006)
    - HVAC
    - Electrical/lighting
    - Canyon crane
  - Equipment size reduction/cell space optimization study (issued August 2006).
  - Canyon demolition study (issued September 2006).
  - Remedial Action Work Plan (RDR/RAWP) (Draft A to EPA and Ecology by Dec. 31, 2006).

# Planned Activities

## Next 6 Months

- Identify path forward for documenting agreements on facility binning including the development of an Agreement in Principle for later TPA negotiations.
- Transmit Draft A of the EE/CA for non-time critical removal action for Bin C facilities to EPA and Ecology for review.
- Initiate D&D of ten structures (607, 622D, 622G, 2710E, 2231E, 2232E, and 2233E, MO-991, MO-943, and MO-040) that do not have active utilities and have already undergone initial demolition preparation activities.
  - These demolitions bridge a schedule gap for D&D crews and allow continued progress on clean-up of the plateau. At least one of these facilities has been condemned by the fire marshal.

# **Planned Activities**

## **Next 6 Months**

**M-015-00**

### **Waste Site Remediation**

- Public Involvement/comment period on M-015 Change Request Package.
- Complete DQOs for the model groups.
- Prepare SAPs for new characterization work identified.

# Planned Activities

## Next 6 Months

**M-015-00**

### Waste Site Remediation

- **200-CS-1**
  - Work with Ecology to resolve comments received on 200-CS-1 FS and begin drafting Draft B FS and PP.
- **200-PW-2/4**
  - Revisit resolution of Ecology's remaining comment on the 200-PW-2/200-PW-4 RI Report pending outcome of the M-015 tentative agreement.
- **200-PW-1/3/6**
  - Continue 200-PW-1 carbon tetrachloride dispersed vadose zone plume remedial investigation field activities (e.g., complete vapor sampling of planned groundwater wells in 3 locations).
- **200-SW-2**
  - Complete non-intrusive investigations at 200-SW-2.
  - Initiate 200-SW-2 intrusive DQO process.
- **200-MW-1**
  - Complete drilling at 216-A-4 Crib to support completion of the characterization at that site for the 200-MW-1 Operable Unit.
- **200-LW-1/2**
  - Complete preliminary 200-LW-1/200-LW-2 feasibility study and proposed plan.
- **200-IS-1**
  - Complete 200-IS-1 DQO process.
  - Prepare Internal Draft Work Plan for initial phase of sampling.
- **BC Cribs**
  - Initiate BC Cribs Treatability planning and preparations.
  - Initiate HRR Validation DQO/SAP process.



# Planned Activities

## Next 6 Months

### M-015-00

### Groundwater Remediation

- **200-ZP-1**
  - Continue preparing the 200-ZP-1 Feasibility Study.
  - Begin treatability testing for Tc-99 removal.
- **200-BP-5 OU**
  - Issue 200-BP-5 DQO Report.
  - Revise 200-BP-5 Waste Control Plan.
  - Issue 200-BP-5 Work Plan/SAP for RI/FS.
- **200-PO-1 OU**
  - Issue RI/FS DQO Summary Report.

# **Planned Activities**

## **Next 6 Months**

**M-016-00**

### **Waste Sites Remediation**

- Target 200-UW-1 ROD in February 2007. Draft to include final actions for all UW-1 waste sites except cribs.
- Approve SAP for 241-W-361 Settling Tank.
- Approve SAP for UW-1 Waste Sites RTD.
- Obtain video of 241-W-361 Settling Tank.
- Approve/Reject TPA Change Requests for 216-U-12 (TSD to RPP) and 216-U-15 (CPP to RPP).

### **Groundwater Remediation**

- Continue 200-West Area Carbon tetrachloride Source-Term Investigation (Vista Engineering).

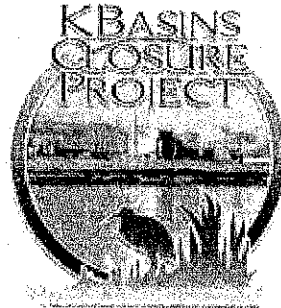
# Issues

## **Regulatory Issues (DOE-only opinion)**

- Agreement is needed on key decision parameters to facilitate timely Records of Decision (e.g.; UW-1, BC Cribs).

# **Hanford K Basins Closure Project**

## ***Tri-Party Agreement M-34 Milestone Review***



***U.S. Department of Energy,  
Richland Operations Office  
Fourth Quarter FY 2006***

***October 19, 2006***

# Hanford K Basins Closure Project

## TPA Milestone Status

### Remaining Milestones Due Fiscal Year 2006-2009

Number	Milestone Title	Due Date	Status/Comments
M-34-33	Containerize K East Sludge, All K East Sludge is placed in containers a. Sludge containerization initiation b. Sludge containerization complete	a. 10/31/2004 b. 03/01/2005	a. Initiated on 10/31/2004 b. Work in Progress.
M-34-34	Complete removal of K East Sludge	05/2007	On schedule. Completed ORR on 10/06/06.
M-34-35	Containerize K-West Sludge a. All K West bulk sludge is placed in containers b. Complete final pass clean up	a. 07/2007 b. 01/2008	On schedule.
M-34-30	Initiate Sludge Treatment This interim milestone will be complete following treatment and packaging of the first unit of sludge into a form that is certifiable for disposal offsite.	12/2008	Under review. Categorical advance procurement authorization withdrawn and revision to PDSA format. Advance procurement of Mobile Solidification System (MOSS) approved.
M-34-32	Complete Removal of the K East Basin Structure This interim milestone will be complete when spent nuclear fuel, sludge, debris and water are removed from the K East Basin and the upper building and concrete basin are removed.	03/31/2007	At risk. Requires completion of M34-34. M34-34 will not be completed sufficiently early to allow for the completion of this milestone.
M-34-31	Complete Sludge treatment This interim milestone will be complete following treatment and package of all sludge for disposal offsite.	11/2009	Under review. Categorical advance procurement authorization withdrawn and revision to PDSA format. Advance procurement of MOSS approved.
M-34-00A	Complete removal of the K Basins and their contents Note: This milestone will be complete when both K East and K West Basins, spent nuclear fuel, sludge, debris, and water are removed.	03/31/2009	At risk. Requires completion of M-34-31 per current technical baseline.



## ***Significant Accomplishments and Status***

### **Project-wide**

- Completed FH and DOE Operational Readiness Reviews (ORR) for the hose-in-hose (HIH) transfer of sludge from K East to K West Basin on October 6, 2006.
- RL has received a proposal providing alternative approaches for turnover of the K Basins to the River Corridor Contractor earlier than baseline schedule.
- RL has received a Rough Order Magnitude (ROM) estimate regarding the sludge treatment at different operating parameters.
- RL has entered into an agreement with FH to extend it's contract by two years.
- EPA and RL approved the 105KE Basin Qualified Process for Demonstrating End Point Criteria.





## ***Significant Accomplishments and Status***

### **K East Basin**

- Obtained EPA approval of qualified process for demonstrating end point criteria.
- Containerization of bulk sludge continues (see metrics).
- Initiated planning to adapt use of HIH transfer system to transfer "final pass" sludge from K East Basin as an alternative to use of numerous disposable cartridge filters.

### **Transfer of Containerized K East Basin Sludge to K West Basin Containers**

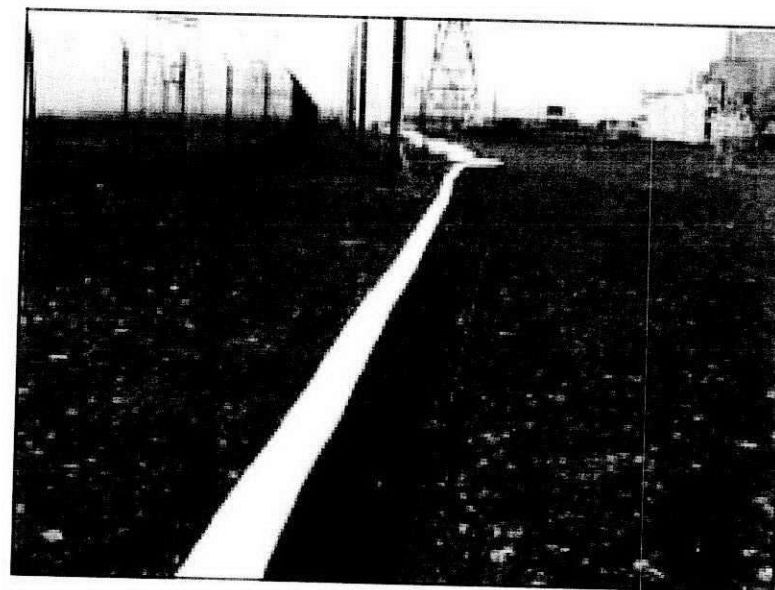
- Completed contractor and DOE ORRs on October 6, 2006.
- Plan to initiate sludge transfers before end of October 2006.

### **K West Basin**

- Prepared work plan for knockout pot (KOP) sludge characterization which includes estimating the quantity of fuel and non-fuel in the KOPs.
- Completed construction and testing of the Floor and Pit Sludge Retrieval (FPSR) system.



## ***Significant Accomplishments and Status***



## ***Significant Accomplishments and Status***

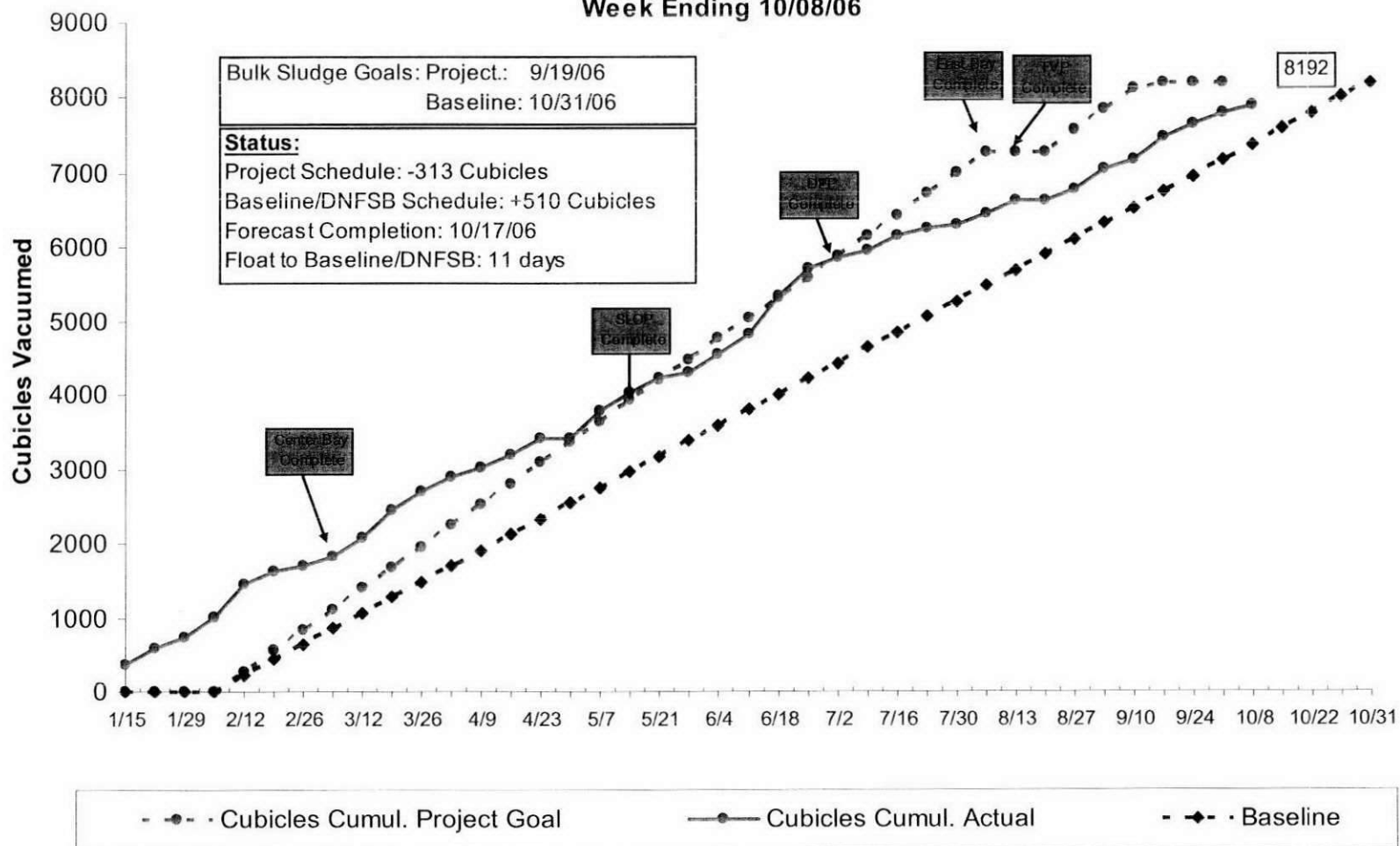
### **K Basins Sludge Treatment**

- Initiated physical fabrication of the Mobile Solidification System (MOSS) unit. MOSS fabrication is ~20% complete.
- Revision 0 of the STP Preliminary Documented Safety Analysis (PDSA) addressing the Corrosion System, Assay System, and MOSS was received by DOE for review and approval.
- DOE received for approval a request for early procurement authorization for the Assay System.
- Completed 60% design of the Retrieval and Transfer Systems and the associated FH design review.
- Briefed the EPA and Washington State DOH on planned STP initial construction activities and obtained their informal agreement that FH could move forward as planned with no regulatory concerns.
- Completed the Drum Handling System 100% design. This package is currently undergoing final FH review prior to acceptance.
- DOE concurred to continue to utilize existing K Area seismic design criteria.
- DOE withdrew their earlier direction to apply NRC equivalency to STP CVDF equipment.
- DOE received for considerations a rough order of magnitude (ROM) estimate of the impacts of potentially lowering the Corrosion System operating parameters.
- Prepared a post-ROD treatability study plan to evaluate the impact of the oxidation/corrosion process on the physical and rheological properties of the treated sludge.

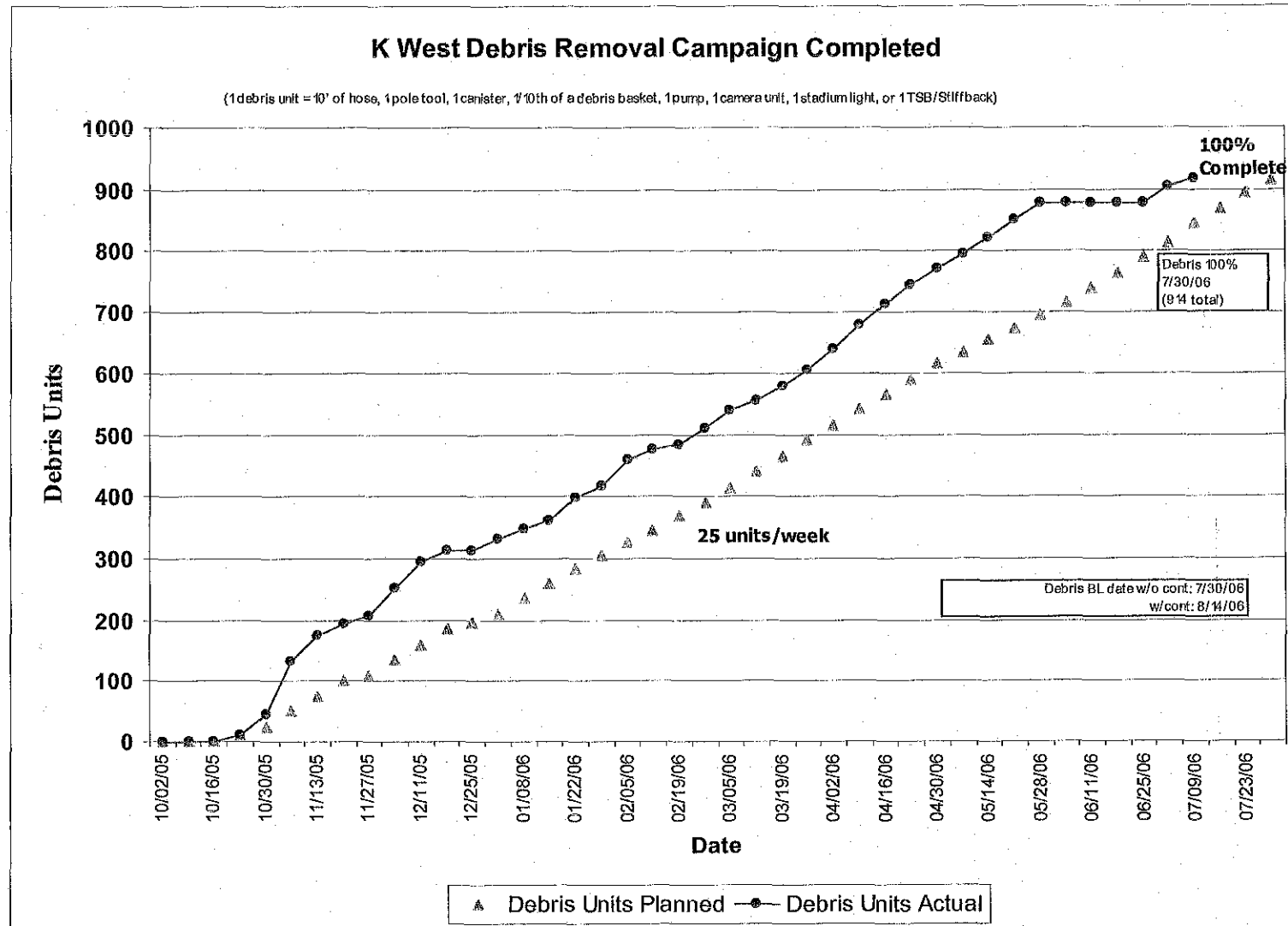


## K East Metrics

K East Bulk Sludge Containerization Progress  
Week Ending 10/08/06



# K West Metrics



## ***Upcoming Activities (next 3 months)***

### **Project-wide**

- Manage current and emerging risks.
- RL review of FH K Basins turnover proposal and options analyses.
- RL review of ROM estimate for sludge treatment at lower operating parameters.

### **Fuel Removal**

- Collect and stage "found fuel" and scrap fuel for removal from K East Basin.
- Work with Washington Closure Hanford (WCH) to receive fuel fragments of questionable enrichment from remedial action operations associated with burial grounds.

### **Debris Removal**

- Remove debris in K East Basin.
- Initiate large debris removal at K West Basin.
- Continue to ship staged debris waste to ERDF for disposal.



## ***Upcoming Activities (next 3 months)***

### **Sludge Removal and Treatment**

- Begin transfer of sludge from K East Basin to K West Basin.
- Complete K East Basin sludge containerization to the extent of meeting DNFSB and EPA expectations.
- Initiate sludge containerization at K West Basin.
- Complete sludge treatment design.
- Issuance of Requests for Proposals (RFPs) for the primary pump for the Sludge Transfer System, the Corrosion System, the Assay System, and assorted Drum Handling Systems equipment.
- Award fabrication contracts for the Corrosion System and Assay System.
- Initiate physical work in the Cold Vacuum Drying Facility (CVDF) on construction activities required to prepare the CVDF for installation of sludge treatment equipment.
- Complete revision 1 to PDSA incorporating Retrieval and Transfer Systems and Drum Handling System.
- Continue fabrication and assembly of the MOSS.
- Initiate lab scale corrosion process chemistry testing.

### **K East Basin Decontamination and Decommissioning**

- Complete Qualified Process demonstration.





## KBC Project Risk Status

Risks are those factors associated with the Project, both existing and emerging, that can result in cost and schedule impacts. These risks are being managed by a Risk Mitigation Plan with the objective of minimizing cost and schedule impacts.

Subproject	Major Remaining Risks	Emerging Risks
<b>K East Basin</b>	<ol style="list-style-type: none"> <li>1. Re-deposition of sludge will necessitate additional vacuuming.</li> <li>2. Delays in sludge vacuuming caused by clogging end effectors and hosing.</li> <li>3. The waste designation and disposal pathway of approximately 100 boron trifluoride neutron detectors discovered in the K East Basin.</li> </ol>	<ol style="list-style-type: none"> <li>1. Change in demolition approach from that currently planned (i.e., grout and remove).</li> </ol>
<b>K West – HIH Transfer</b>	<ol style="list-style-type: none"> <li>1. Disposition if any mechanical problems encountered during operation impact schedule.</li> </ol>	
<b>Sludge Treatment</b>	<ol style="list-style-type: none"> <li>1. Hazards associated with treatment process force redesign.</li> <li>2. Ability to maintain Sludge Treatment and Packaging System Equipment.</li> <li>3. Increased complexity of CVDF modifications.</li> </ol>	<ol style="list-style-type: none"> <li>1. Change in sludge treatment location and/or operating parameters.</li> </ol>
<b>General</b>		



## ***Performance Measurement Terminology***

### **BCWS (Budgeted Cost of Work Scheduled)**

- BCWS represents the baseline budget for a scope of work over time. BCWS is normally combined with a term such as "Current Period" or "Fiscal Year to Date (FYTD)" to identify the time period the BCWS is associated with. BCWS is created by spreading the baseline cost estimate for a scope of work across its schedule activity duration based on the expected monthly level of activity. BCWS is the basis for the funding requested to perform a scope of work and is maintained through a documented change control process

### **BCWP (Budgeted Cost of Work Performed)**

- BCWP represents the value of the work actually accomplished during a period based upon its budgeted value or BCWS. BCWP is a measure of the value of work based upon the physical work reported complete per the baseline schedule status update

### **ACWP (Actual Cost of Work Performed)**

- ACWP represents the actual costs incurred to perform the work that was completed during a period and recorded as BCWP. For any particular period, ACWP includes accruals for costs not invoiced or booked associated with work that was performed during the period

### **SCHEDULE VARIANCE (SV)**

- SV represents the difference between the work actually accomplished and the work planned or scheduled during any particular time period. ( $SV = BCWP - BCWS$ ) A positive SV reflects an ahead of schedule situation while a negative SV reflects that work is behind the scheduled plan

### **COST VARIANCE (CV)**

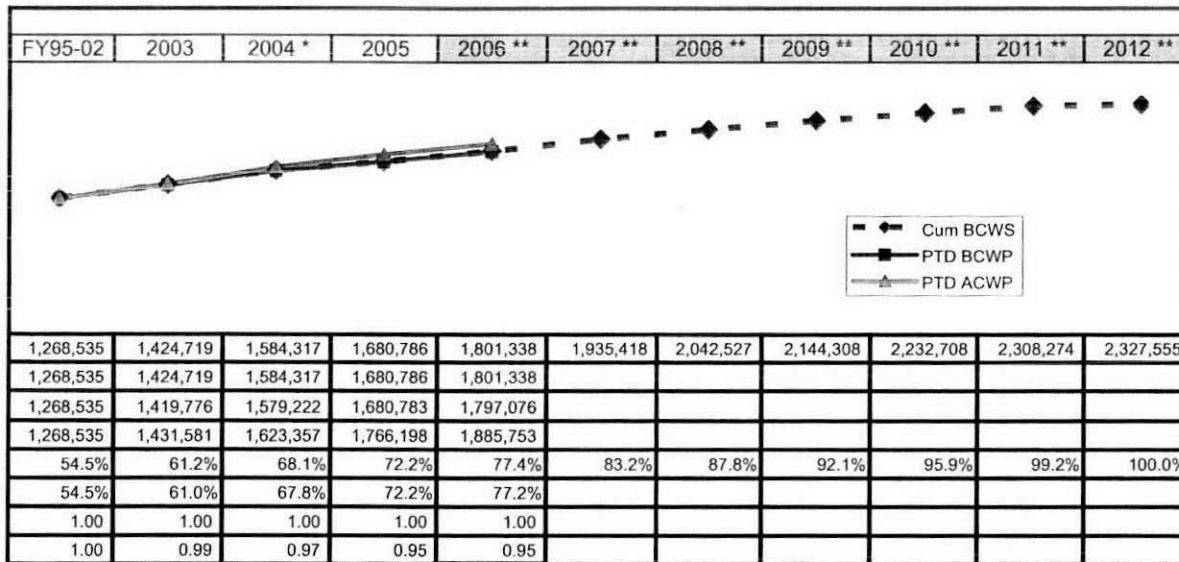
- CV represents the difference between the budgeted value of the work actually accomplished and the actual costs incurred to perform the work. ( $CV = BCWP - ACWP$ ) A positive CV reflects the work being accomplished for less than its budgeted value and a negative CV reflects the work costing more to complete than planned

### **BAC (Budget at Completion)**

- BAC represents the total baseline budget for a scope of work associated with either a fiscal year or life cycle. BAC is the summary of all monthly BCWS values for a scope of work within the fiscal year or life cycle. On a fiscal year end report the FYTD BCWS will equal the FY BAC



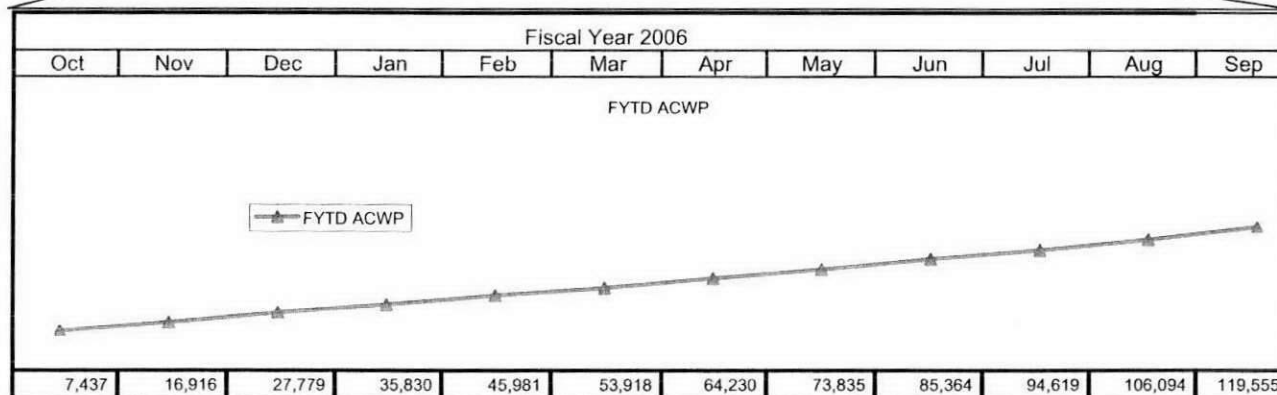
## KBC Project – Total Project Baseline



Life Cycle	
*BAC=	2,327,555
EAC=	2,411,970
BCWS=	1,801,338
BCWP=	1,797,076
ACWP=	1,885,753
SV=	(4,262)
CV=	(88,677)

Cum BCWS  
PTD BCWS  
PTD BCWP  
PTD ACWP  
% Sch  
% Cmpl  
SPI  
CPI

FYTD ACWP



\* PHMC Rebaseline Sludge Retrieval & Disposition Project and Decontamination & Decommission Project  
 \*\* FH KBC Project Level replan estimate (with Management Reserve)



***KBC Stabilization and Disposition***  
***Project Performance through Fourth Quarter FY 2006***  
(\$ in thousands)

By PBS		<u>FYTD</u> <u>ACWP</u>
PBS RL-0012	Safe and Compliant	\$ 17,721.3
PBS RL-0012	Sludge Retrieval and Disposition	\$ 80,128.1
PBS RL-0012	D&D Deactivation	\$ 3,930.7
PBS RL-0012	Closure Services	\$ 17,774.6
<b>TOTAL</b>		<hr/> <b>\$ 119,554.7</b>



*Tri-Party Agreement Major Milestone Management Review*  
*October 19,, 2006*

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*October 19,, 2006*

[illegible]



**Thursday, October 19, 2006**

Ecology Offices, Conference Room 3A  
3100 Port of Benton Way  
Richland, Washington

**Agenda**

**Central Plateau Milestone Review Meeting**

**Chairman: Matt McCormick**

9:00 a.m.	M-83-00	PFP Transition
9:20 a.m.	M-26-01	Land Disposal Restrictions Report
	M-91-00	Acquisition of Facilities to TSD TRU/TRUM and LLMW
	M-92-05	Facilities for Cesium/Strontium
9:45 a.m.	M-20-00	Permitting/Closure Plans
10:00 a.m.	M-15-00	RI/FS Process Completion
	M-16-00	Complete Remedial Actions
	M-24-00	Groundwater Well Installation
10:35 a.m.	M-34-00	K Basins Closure Project
11:00 a.m.	Adjourn Milestone Review	